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Leveraging Knowledge Assets: Can Law Reform Help?

Margaret Ann Wilkinson[†] and Mark Perry[‡]

Abstract

This paper asks whether there is a need for law-makers to aid in the efficient transition to a new knowledge-based economic and social environment through the use of intellectual property devices. The use of such devices was effective in assisting with the transition to an industrial society that, combined with developments in commercial law and secured transactions, further fuelled economic growth in Canada. Can these disparate areas of law be brought together to provide opportunities for the growth of knowledge-based business? The Law Commission of Canada instigated a two-part investigation into these questions. The investigation culminated in the Commission's report *Leveraging Knowledge Assets: Reducing Uncertainty for Security Interests in Intellectual Property* (2004). This article describes the process of the investigation undertaken by the Commission and more particularly describes the results of the first branch of the enquiry, which was a three-part empirical study seeking to establish whether legal intervention into harmonizing the law of secured transactions and intellectual property law is warranted from the business perspective. Results of the first empirical branch of the enquiry, a pilot survey of business people and their legal advisors, the second branch, a national teleconference consulting business leaders, and the third branch, a feedback consultation session with conference attendees, are reported against the backdrop of the Commission's subsequent report. It appears that the traditional devices of intellectual property are not adequately serving emerging business needs around knowledge assets. However, it seems to be too simplistic to characterize these inadequacies as exclusively, or even directly, related to the relationship between the law of secured transactions and intellectual property devices. Reactions from study participants in business suggest caution in undertaking law reform in this area — cognizant, from a business perspective, of the possible implications of changing the current balancing of interests in the knowledge-based business sector. The Law Commission's report may serve as a catalyst for an emerging

dialogue between legal experts from different fields of law but further direct consultation with the business community they serve appears to be necessary before changes are implemented.

The Genesis of the Investigation

Background

By spring of 2001, the Law Commission of Canada had recognized the importance of highlighting the imminent convergence of two traditionally separate areas of law: intellectual property and secured transactions. Although each is an intensely active area of legal practice and legal scholarship, only a very few authors had written about the intersection of the two.¹ Nothing existed in the research literature from the field of business.²

The Commission spear-headed the development of a two-part investigation into the question of whether law might be able to play a part in encouraging Canada's effective and efficient transition to a knowledge-based economy and society. The two parts of the investigation were pursued simultaneously. The first branch was an empirical enquiry seeking to establish whether the business community in Canada perceived the need for legal intervention to assist in the effective and efficient transition to the new economy.³ This branch of the enquiry was particularly designed to investigate concerns expressed to the Law Commission that "the law regarding security interests in federally regulated industries is inadequate".⁴ The second branch of the investigation was designed to canvas the best Canadian and international scholars available, seeking recommendations about what form legal intervention should be taken if such intervention were determined to be warranted.⁵

The fruits of the second branch of the Commission's investigation may be found generally in a subsequently published compilation of the papers given at the Conference that the Commission co-hosted with the Faculty of Law and the Ivey School of Business at the

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University of Western Ontario in London, Ontario, in November, 2001.⁶ This publication was shortly followed by the 2004 Law Commission Report, *Leveraging Knowledge Assets: Reducing Uncertainty for Security Interests in Intellectual Property*.⁷ The discussion here will focus on the first branch of the Commission's efforts: on the evidence provided through the empirical work done involving the business community in determining whether legal intervention in this area is warranted. It should be noted that although the Law Commission's Report in 2004 stems directly from some of the papers presented at the 2001 Conference,⁸ it does not encompass the business perspective reported here, which was involved in the preparation and process of that same conference.⁹

Business perspective

It has been widely acknowledged that the economies of industrialized nations are continuing to transform into information-based economies. Among the most salient characteristics differentiating this new business reality from the economies of the previous several centuries is the increasing recognition of business "know-how" as a valuable asset in its own right. Whereas the previous era was characterized by the mass production of physical goods, the new capacity of the computer and telecommunications devices to manipulate, store and transmit data is leading firms to focus on their information resources, which most often take the form of digital media. Such information assets are crucial, not only for the information technology enterprises, but also for all industries in the current environment.

A widespread recognition of the business potential of "information" led, just at the close of the twentieth century, to a remarkable flowering of business start-ups and expansions focused on the production, distribution, and exploitation of "knowledge assets". Investment in these initiatives was fuelled almost entirely by investor confidence, rather than by traditional lending principles. Perhaps as a consequence, this new century has opened with renewed investment conservatism in these kinds of ventures. Despite this recent set-back in the re-orientation of the economies of leading industrialized nations, it may still be inevitable that business and society in these nations need to adapt to the emerging information economy in order to remain dominant, or even viable, national economies. In particular, it would appear that investment in online business and business largely based on "knowledge assets" will need to be financed increasingly through lending rather than through capital investment.

One of the tools used by governments to effect industrialization was the creation of the legal apparatus of intellectual property. Financing growth through debt rather than equity, another feature that dominated the transition to an industrial economy, has fuelled the development of the law of secured transactions. This law has been developed both through the courts and by deliberate government statutory intervention. If Canada

wishes to continue the transition to a new, information- or knowledge-based economic and social environment, *how might that transition be best encouraged? Is there a role for the law-makers, either the courts or the legislatures?*

Legal perspective

Intellectual property is an area of legal practice that was important throughout the industrial age, and one that has had important information policy consequences throughout its history. However, these information policy consequences were largely unheralded in an economic, political and social environment focused primarily upon the mass production of goods and national advancement. However, even though not clearly articulated in policy statements or in laws themselves, elements of the construction of traditional legal tools of intellectual property require the legal manipulation of the information environment in society. Copyrights, for example, allow the holders of these rights to determine various uses of expressions of idea and facts but, at least theoretically, leave the ideas and facts themselves in circulation throughout society. Similarly, the granting of patent rights has been constructed to necessarily require the patent applicant to lay out for public inspection a full description of the invention or improvement for which the limited term economic monopoly is being granted.

Nevertheless, in our industrial societies, knowledge of intellectual property has not heretofore been considered integral to an understanding of the law. Many lawyers practising in the area formed specialized "boutique" firms that served particular communities of clients. Businesses and other organizations seeking such specialized service were often referred to these specialty firms by other lawyers who routinely confined themselves to aspects of corporate and business law other than intellectual property. Of course, the intellectual property bar was not the only specialized branch of legal services to evolve to serve the industrial age: the financing of the complex undertakings and organizations that characterize industrialized societies also spawned, for example, the need for lawyers with particular practice expertise in corporate financings and secured transactions.

The Empirical Enquiry

Questioning the need for legal intervention in Canada to enhance the attractiveness of knowledge assets as security for debt financing

Testing assumptions

One of the many challenges in exploring complex questions, such as those the Law Commission of Canada posed to itself, is the challenge of communicating with mutually exclusive specialized communities. The notion of "intellectual property" is a term of art

particular to the domain of legal scholarship. This has two consequences that influenced the design of this empirical enquiry. The first is that the term is rarely used, and even more rarely understood, outside the community of lawyers and legal scholars who specialize in intellectual property. In fact, even within that group, there is no consistency in terms of the boundaries of inclusion of concepts within the term “intellectual property” (“IP”). For example, some authors, such as David Vaver, appear to use this term in a narrow sense. Although in his book he mentions business names and trade secrets in a discussion of registration, and plant breeders’ rights in a discussion of patentable subject matter, Vaver’s substantive definition of IP encompasses only copyright, patent, and trade-mark.¹⁰ Robert Howell’s *Intellectual Property Law: Cases and Materials* also uses this narrow construction although the additional topics of passing-off, injurious falsehood, and appropriation of personality are also briefly dealt with.¹¹ Lesley Ellen Harris takes a somewhat wider stance. The definition she uses in her book includes five major areas: copyright, patent, trade-mark, industrial design, and confidential information and trade secrets.¹² Ejan Mackaay and Ysolde Gendreau’s compilation of Canadian intellectual property legislation is wider still, including: patents, trade-marks, plant breeders’ rights, copyright, the various acts which compose the Status of the Artist legislative schemes, industrial design and integrated circuit topography.¹³ The widest sense of the term “intellectual property” is found in Sheldon Burshtein’s *The Corporate Counsel Guide to Intellectual Property*.¹⁴ His definition includes patents; trade-marks; copyright; industrial design; confidential information; personality rights and privacy; topography rights; plant breeders’ rights; misleading advertising and deceptive trade practices; as well as a discussion of intellectual property on the internet which discusses domain names as intellectual property.

In its recent Report, the Law Commission finesses the problem of definition by announcing a focus only on federal intellectual property rights defined by statute: patents, copyrights, registered trade-marks, industrial designs, integrated circuit topographies, and plant breeders’ rights.¹⁵ The Report then immediately narrows its focus further: “patents, copyrights and trade-marks, since they are the most practically significant of the six categories of federal IPRs [intellectual property rights] (although the analysis is readily translatable to industrial designs, integrated circuit topographies and plant breeders’ rights)”.¹⁶

The Law Commission’s reasoning for focussing only on federal intellectual property rights in its Report appears to be tautological:

Fortunately, it is not necessary to come up with a precise inventory for the purposes of this report since the most significant obstacles to IPR-based secured funding derive from the presence of federal title registries for federal IPRs. Provincial IPRs can be accommodated in the existing provincial secured lending systems with relatively minor reforms.¹⁷

It is difficult to understand how the Commission can be so confident that intellectual property rights derived through provincial heads of constitutional power in Canada can be so easily accommodated in the provincial secured lending systems without having to define what those intellectual property rights systems are. Indeed, at least one clear problem appears to exist with this assertion that relatively minor reforms will take care of any provincially based problems: one would presume that the tort of passing off, something which clearly lies within provincial competence, but which is intimately related to the concept of trademark in this country (indeed, the indicia of passing off are often referred to as “common law marks”),¹⁸ would have to be considered *for candidacy within the umbrella of intellectual property rights — and yet, prior to the commencing of an action, it is not clear the extent to which this interest in a particular indicia is registrable in the provincial secured lending systems*.¹⁹

Moreover, there would appear to be two types of difficulties about the Commission’s focus on the federal sphere of influence. First, the Commission offers no evidence to support its assertion, quoted above, that “the most significant obstacles to IPR-based secured funding derive from the presence of federal title registries for federal IPRs”.²⁰ Indeed, the evidence presented here from the empirical portion of the Law Commission’s investigation into issues related to leveraging knowledge assets, as discussed below, presents a far more nuanced and complex picture of the obstacles perceived by the business community to securing funding of knowledge assets, both IPR-based and otherwise. Second, the Report seems to consider the ambit of the federal government’s involvement in intellectual property to be limited to the six statute-based devices it listed. The Report lists domain name rights as lying entirely within the realm of provincial involvement,²¹ which seems a curious characterization given the extremely active involvement of the federal government in the area through CIA, the Canadian Internet Registration Authority.

The Law Commission’s concern about the problems of leveraging knowledge assets in Canada began even earlier than 2001, but it certainly flowered in 2001, through both the coalescence of scholarly papers which fuelled the Commission’s 2004 Report and the national canvassing of business perspective on the problem of leveraging knowledge assets. As demonstrated in this present description of that national canvas of business perspective, and as demonstrated in the focus of much of the scholarly activity bearing on the question of knowledge assets, intellectual property is certainly recognized as forming a part of the environment of knowledge assets, but the Law Commission’s 2004 Report has focused solely on the intellectual property assets that form an undisputed core of intellectual property.²² This focus has left very important questions, unacknowledged by the Commission, for future consideration: (a) what approach should be taken for knowledge assets lying

outside this core — and even outside the ambit of intellectual property? (b) what will the effect of the reforms recommended in the Law Commission’s Report, with its narrow focus on only federal registered intellectual property interests, be on Canadian business involving the full range of knowledge assets?

The second related problem is that, whatever the accepted ambit of the use of the term “intellectual property”, the notion of “intellectual property” is not used in business literature to refer to the full ambit of emerging products and services that are fuelling new economy businesses.

The empirical investigation undertaken for the Law Commission was deliberately designed to elicit articulation of issues *by the business community*. The first hypothesis postulated for investigation was that:

The value created by businesses in the new information economy is not entirely appropriately captured by existing legal (particularly intellectual property) concepts.

The second hypothesis was that:

Businesses in Canada face significant legal obstacles when attempting to obtain security for financing on the basis of knowledge-based assets.

The final hypothesis tested was that:

There are discernable differences between stakeholder in the Canadian business community on issues that relate to intellectual property such that is impossible at this time to discern a consensus of business opinion which would point to any particular legal reform of the regime of secured transactions.

Canvassing business opinion in Canada

In conducting this investigation into the possible need for law reform, the Law Commission of Canada instigated a process of asking questions in the business community that were not yet being asked in the scholarly literature of the business community.²³ The feedback from the business community was also being sought at a time of dramatic uncertainty and pressure for the very businesses whose input was being sought.²⁴ Moreover, it was important to consider business opinion from all sectors, sizes of enterprises and geographic locations when contemplating the role of law in reacting to changing circumstances. The Commission’s goal in this project, as well as in other areas of its activity, was to work toward developing an understanding of the need for, and potential impact of, possible legal reforms throughout the country.

For these reasons, the investigation proceeded along three separate lines: a survey, a teleconference and an interdisciplinary face-to-face conference. It was hoped that the trends identified in each of the three would demonstrably reinforce, supplement or complement the trends discerned in each of the other two.

Survey

Respondents

The first method employed to seek business opinion about the questions of financing knowledge-

based businesses was a survey. The survey, available in both French and English, was administered through several avenues. Initially the survey was developed and administered using a commercial online package.²⁵ The survey was subsequently adapted to a traditional paper-based form and administered through various mailing lists.²⁶ It was also made available to the participants of several variously related law forums that occurred during the study.²⁷ Finally, a link to the online survey was posted on the Web site of the Conference mentioned above and further discussed below.

The target populations for these multiple forms of survey administration were business leaders involved with knowledge assets, business people involved in the financing of knowledge-based businesses (either through equity or debt, or both), and lawyers involved in advising such business people. Eventually, 64 responses were received to the questionnaire.

The survey was administered anonymously and the extent of demographic information sought from the respondents was deliberately kept extremely low. The survey was kept very short in order to minimize the encroachment on the respondents’ time — and every effort was made to avoid discouraging participation by seeking information from respondents that might be considered too intrusive (see Appendix A). As can be seen in the following table (see Table 1), business people represented roughly half the respondents while legal advisers representing businesses (including trade-mark and patent agents) made up the other half. Practicing lawyers accounted for one-third of the total respondents.

Table 1. Survey Respondents.

Job Designation	Respondents with this Job Designation
Lawyer in private practice	37%
Other senior managers*	14%
CEO/President	14%
Trademark or patent agents*	11%
Corporate counsel	11%
Consultant*	8%
Other (Graduate law student, retired, engineer)*	5%

NB: The total number of respondents (*n*) was 64.

* Coded into categories identified from open responses.

The extent of the respondents’ direct involvement in the financing of knowledge-based businesses and their knowledge about the financing process are illustrated in the following table (see Table 2). It may be inferred from these two tables that a range of business opinion, including senior executive opinion, is represented by the respondents. The open-ended responses to various questions in the survey provided further information about the respondents: they included large publicly traded companies and start-ups, biotech and software companies, venture capitalists, and firms that “assist SMEs [small to medium enterprises] in seeking equity partners”.

Table 2. Level of Respondents’ Knowledge and Participation in Financing.

Degree of Involvement with or Knowledge about the Financing Process	Respondents with this Degree of Involvement or Knowledge	
	Involvement (n=63)	Knowledge (n=64)
None	19%	8%
Marginal	25%	20%
Moderate	24%	34%
High	21%	34%
Highest	11%	3%

Respondents’ views

What are knowledge assets?

The respondents were asked what the term “knowledge assets” meant to them — and were given the opportunity to add to the possibilities presented in the questionnaire. The information provided by the respondents provided important insights relevant to the first hypothesis of the research (see Table 3). Virtually all of the respondents thought that the term embraced patents (97%). However, just as many thought trade secrets were an integral part of knowledge assets as thought that copyrights were involved (92%). Nearly as many people viewed confidential information other than trade secrets as part of the knowledge assets of an organization (76%) as thought industrial designs were included (79%). On the other hand, fewer were convinced that plant breeders’ rights and integrated circuit topographies were included (65% and 67%, respectively). It is particularly telling that nearly a third of the respondents chose to add their own comments on this question (30%). These comments ranged from one respondent who made explicit her or his assumption that “it is synonymous with intellectual property” to another who stated that “know how’ of key employees not otherwise protected by defined legal rights” must be considered to be

included in the concept of “knowledge assets”. One respondent took issue with the preceding legal devices, saying ‘I do not believe labelling IP in this manner is useful. These assets should be dealt with according to commercial requirements”. A second agreed, saying that “knowledge asset” meant “decision-ready awareness by humans — only” and arguing that the listed devices “are all just information — very tangible, able to be valued via simple market models”. While two respondents added software as a category and one added “licensed rights” and another “economic relationships”, 10 other respondents focused on the human dimension of “knowledge assets”: for example, “the training, research and development, and knowledge base acquired from work experience resident in workers in a specific (company) task or project”, “inventor or key technology people”, and “access to an expert, we hold rights to consult with a knowledge expert in our industry”.

Table 3. Respondents’ Views of the Meaning of “Knowledge Assets”.

Term	Respondents who Considered this Term to be a “Knowledge Asset”
Patents	97%
Copyright	92%
Trade secrets	92%
Trademarks	81%
Industrial designs	79%
Types of confidential information other than trade secrets	76%
Integrated circuit topographies	67%
Plant breeders’ rights	65%
Other	30%

NB: All 64 respondents answered this question.

One quarter (25%) of the respondents indicated that the nature of knowledge assets discouraged them from attempting to leverage them, and, indeed, 41% of the respondents indicated that they had not been involved in any attempts to leverage such assets in the previous three years. Each of the 16 respondents who were discouraged from attempting to leverage these assets provided reasons for this discouragement:

- Knowledge assets lack a common valuation process by which one can determine their objective value (11 commentators)
- There is no formal way to register the security (2 commentators)

- There is no way to grant a security interest in intellectual property
- Security from undue disclosure and conflict of interest with the potential funders, which disclosure could create, are problems
- Knowledge assets are too unconventional: why waste time trying to leverage them when it is perceived that most lenders will not be receptive (3 commentators)
- In the event of a calamity, knowledge assets can always be resurrected in a new venture with far less trouble than other assets and usually at a very small price because their value is often not properly understood
- Typically the knowledge represents every bit of value in the high tech company — when borrowing around, this can be difficult.

Are there perceived to be legal obstacles to obtaining financing on the basis of knowledge assets?

The 37 respondents (58%) who indicated that over the past three years they had been involved in one or more transactions involving attempts to leverage knowledge assets collectively represented at least 149 such transactions in Canada (see Table 4).

Table 4. Total Number of Transactions Represented in the Survey.

Transactions	Number of Responses
One	1
Two	5
Three	8
Four	1
Five or more	22
Total transactions — 149+	

NB: The total number of respondents (*n*) to this question was 37.

The respondents collectively represented more experience in seeking licensing funding than any other type of funding, but a wealth of experience with both equity and non-equity funding pursuits was also represented (see Table 5).²⁸ Reasons for the licensing advanced by the respondents included: being a large publicly traded corporation and “thus licensing most relevant”; garnering “additional revenue streams from non-core IP assets (patent licensing)”; “when the owner wished to maintain control while generating revenue from markets others were better placed to serve whereas] assignment [was used] when [the] acquiring party wanted control and was prepared to pay for it”; and “especially of the patents relate[d] to technology now perseded”.

Table 5. Types of Transactions Represented in the Survey.

Type of Funding Pursued	Numbers of Respondents Who Pursued this Type of Funding
Licensing	25
Venture capital	20
Non-equity based funding	17
Angel investor(s)	16
Government funding	11
Other	4

NB: Respondents were asked to indicate as many choices as were applicable.

The observations of equity and non-equity transactions that emerge from the survey reflect the experiences of both business people and the lawyers who work with them on these transactions.

The three respondents of the 26 involved in equity transactions who provided open-ended responses about why this type of transaction had been chosen indicated that equity had been preferred because “non-equity financing was not available”.²⁹ One commented “it seemed to be the only way to go and not lose complete control of the Intellectual Property associated with the asset”. Another reflected the same perspective, saying “to off load knowledge assets [is] of no use to us at present”. Another commented that “equity based funding appealed to [the] investor’s perception of ‘getting a piece of the action’ with the added perception of greater potential return on investment”. Others commented it was the easiest, best known, quantifiable and available, one particularly noting that such financing was locally available. Several cited their business sectors as the reasons for reliance on equity financing: software, the tech” business, and biotech. Several cited their start-up character as the reason for relying on equity.

The experience of non-equity transactions included both lending and borrowing business people, in successful and unsuccessful applications (see Table 6). The lawyers acted for both borrowers and lenders, but there were no lawyers who reported acting for the borrowing firms in unsuccessful loan applications. This may reflect the reality that in situations where it transpires that the funds will not be able to be borrowed, the lawyers for the loan applicant are typically not called upon by their client to perform services whereas in the same situations, the lawyers for the lenders may be involved at an earlier stage, before the decision about whether or not to make the loan has been taken.

Table 6. Respondents’ Roles in Transactions.

Role (Capacity)	Percentage of Respondents Involved with Equity Transactions in the Capacity (n=50)	Percentage of Respondents who Performed this Role	
		in a Successful Loan Application (n=20)	in an Unsuccessful Loan Application (n=9)
Employee of borrowing firm (firm raising capital)	39	0	22
Employee of lending firm (firm providing capital)	24	15	11
Legal representative for borrowing firm (firm raising capital)	42	35	0
Legal representative for lending firm (firm providing capital)	24	35	33
Other	21	15	33

NB: The number of respondents responding to these sections of the questionnaire was 37 — but individual respondents indicated that they performed different roles in different transactions.

Respondents who had been involved in either successful or unsuccessful loan applications were asked to provide further information about their experiences with such transactions. Only nine respondents provided further information about their unsuccessful loan application experiences and only 21 provided evidence of their successful loan experiences.³⁰ Thus, the evidence provided by the survey on these points must be treated as exploratory rather than statistically reliable for generalizing beyond the experiences of these respondents.³¹ On the other hand, the successful loan application experience reported by these respondents represented a range of transactions worth between \$250,000 and \$50 million.³² The average highest figure mentioned by the 18 respondents to this question about successful transactions was \$9.5 million in round figures. It is noteworthy that the transactions discussed by those involved in unsuccessful applications are much smaller: they range between \$100,000 and \$5 million, with an average of \$1,240,000 and mode of \$300,000.³³

Taken together, both the successful and the unsuccessful loan applicants overwhelmingly viewed their knowledge assets as more difficult to value than the other assets (see Table 7). Although both groups largely thought registration of the knowledge assets was more difficult than registration of the other assets, those whose applications had been successful were *more likely than* their unsuccessful colleagues to have found the legal and regulatory requirements related to these assets to be more complex. The successful applicants reported application processes lasting between 2 and 10 months, with an average of 5 months and a median of 4 months. Again, there appears to be a difference of experience for the unsuccessful applicants (who appear also to tend to be applicants for smaller loans): the time for transactions is reported to vary between 2 and at least 12 months, with an average of 6 months.³⁴

The apparent paradox of the less successful applicants viewing the requirements as less complex, mentioned above, is borne out in the number of suggestions received for improvements: only one applicant wrote a direct response — “the federal legislation needs to be amended to contemplate the granting of security interests in IP”. One other comment identified the real culprit as extra-legal: “more competition in the banking industry would help”. The respondents’ assessments of the reasons for the failure of the loan applications are interesting: just over half (four of seven comments) attributed the failure to the knowledge-based nature of the assets. None of these involved plant breeders’ rights or integrated circuit topographies. Trade secrets, other confidential information, and software were each involved in two cases. Patents, copyrights, trademarks and industrial designs were each involved in one case. The respondents attributed the four failures to the following problems:

- “the value of the intellectual property could not be used to secure the loan”
- “no benchmarks for arriving at value ... No revenue, very early in the company”
- “no desire to take on the business from the banks”
- “software not seen as an asset in the same way as concrete products”

The other explanations advanced to explain the failure were: “the credit weakness of the applying company”, “overall assessment of the business plan” and “the earliness of the life cycle”.

One successful applicant commented that the problem with the non-equity based loan application process was less one of law than of the lenders’ understanding of knowledge assets. Another stated “it is my

view that it is impossible to grant a security interest in IP without obtaining an outright assignment”. Other successful applicants suggested the following legal or regulatory simplifications or improvements:

- more timely trademark, copyright and patent filings

- registration regimes for security instruments under the intellectual property statutes (3 comments)
- reducing the costs of recording security agreements against large numbers of assets
- providing a single, nation-wide registry (2 comments)

Table 7. Respondents’ Experience of Knowledge Asset Based Transactions.

Descriptions	Percentage of Respondents					
	Discussing Successful Loan Applications (n=21)			Discussing Unsuccessful Loan Applications (n=9)		
	Agree	Neither Agree nor Disagree	Disagree	Agree	Neither Agree nor Disagree	Disagree
Relative to other assets, it was very difficult to value the firm’s knowledge assets	86	5	5	100	0	0
Relative to other assets, registering the knowledge assets was not a straightforward process	52	19	24	77	0	11
Relative to other assets, the process of borrowing funds on the security of knowledge assets was complex	71	14	10	77	11	0
Relative to other assets, the legal/regulatory requirements were more complex	52	29	5	33	33	11

Teleconference

Approach

The survey was administered on a confidential, anonymous basis to a wide spectrum of potential respondents. And, indeed, a survey has the advantage that such wide distribution is possible; however, a survey also has methodological limitations: the questions are fixed in advance, no further exploration of answers received is possible within the confines of the instrument, the opportunities for open-ended canvassing of issues are limited, and the depth of qualitative evidence obtained in this way is limited. Therefore, this empirical research was planned such that it would elicit further and more qualitative participation from the business sector through two other complementary means of data gathering.

The first was a national teleconference, planned to coincide with the two-day workshop/conference held in London, Ontario. Sites in Vancouver, Calgary, Toronto, London (Ontario), Montreal and Halifax were arranged.³⁵ In each city, a law firm stepped forward to facilitate the creation of a small group of local business people to attend and participate in the two-hour national teleconference.³⁶ McCarthy Tetrault facilitated the gatherings in Vancouver, Toronto and Montreal. McLeod Dixon organized the Calgary group. Harrison

Pensa brought together the London business representatives and McInnis Cooper was the Halifax host.

Kersi Antia moderated the teleconference from the Ivey School of Business in London and was assisted by Mark Perry and Margaret Ann Wilkinson. The conference was simultaneously projected on the Web site for the Conference and to an audience of about 70 persons in another auditorium of the Richard Ivey School. It was also made available for viewing on the Web site of the Conference.³⁷

Teleconference participants

Both the physical constraints of the site venues and the time constraints of a two-hour teleconference dictated the need for the number of participants in each location to be kept manageable. The site participant groups varied in size between five business people plus the hosting facilitators in Halifax and Toronto, to nine participants plus the hosting facilitators in London and Calgary.

The participants represented a comprehensive range of businesses in Canada: from large multi-national high tech firms to small start-up high tech firms, from large venture capitalists to university technology transfer offices, from large to small telecom firms, from banks to small business consultants, and from large financial con-

sultants to the Business Development Bank of Canada. Although they were not specifically precluded from taking part in the survey, it would appear that none of the participants in the teleconference participated in the survey.

After the technical elements of the videoconference process had been discussed and introductions of the participants in each location had been completed, the moderator posed the first of the three questions that were planned for the teleconference.³⁸ After each question was posed, the participating groups simultaneously viewed selected preliminary results from the survey just discussed which were relevant to the question.³⁹ The moderator then swept across the country allowing the participating sites the opportunity to comment on the question.⁴⁰ The business participants were asked:

- (a) “to figure out exactly what the term ‘knowledge assets’ means to us”
- (b) “in terms of the results from the preliminary survey that equity-based leverage attempts form 55% of attempts as opposed to 45% for non-equity based attempts, would you agree that equity-based leverage attempts tend to dominate in this [knowledge-based] area? And, do you think this is a long-term trend?”
- (c) “developing on the notion [which appeared to be developing in the conversation] of knowledge assets being more complex and difficult to get our heads around, *is non-equity based funding more complex than equity-based funding? If you believe that to be the case, what are the reasons?*”

participants’ views

What are knowledge assets?

The participants generally seemed to agree that the categories of devices such as patents, copyrights, trademarks, etc. listed on the slide developed from the survey were included in the concept of knowledge assets but that these categories were “written in legal terminology”. A number of speakers emphasized the perspective that the most valuable “knowledge assets” of an organization are those in the heads of the people — a concept not well captured in a list of traditional intellectual property law devices. Another speaker offered the analysis that the distinction between people assets and the knowledge assets in an organization is that to be considered a knowledge asset there must be documentation. A more technical distinction was drawn by another speaker who proposed that knowledge assets should be considered to be the difference between the book value of a company and the capitalization of a company.⁴¹ That the concept of knowledge assets needs to be limited or bounded was echoed by a later speaker who noted that the term cannot be considered to encompass everything. The value of information as bound up in the concept of knowledge assets was mentioned and the impact of data

protection legislation was specifically cited as having a potential impact on these assets.

The “softer side” of knowledge assets was thought to be missing from the items listed. This was noted to be a serious omission because such issues (“trade secrets and know-how”, knowledge of the markets, “experience and client contact information”, visions about what a patent can do [vision mentioned specifically by more than one participant]) are weighed more heavily by equity investors than those listed. A later speaker noted that many of the issues can be dealt with in contracts and that therefore such contracts should themselves be considered to be embodiments of knowledge assets. Thus, licenses and contracts should be considered additional, independent items in the list of traditional knowledge asset devices.

In some cases, and the particular case cited was software, it was noted that the traditional intellectual property devices that are thought to apply, such as copyright or patent, do not adequately protect the value of the knowledge asset. Another specific comment was that brands and domain names are not sufficiently protected under the current trade-mark regimes and need their own protection. Even within the listed “traditional” categories of intellectual property, protection along the lines of plant breeders’ rights was considered to be less valuable in the marketplace than patent rights. The categories listed were thought to comprise a possible foundation for knowledge assets, but the assets themselves needed to be considered in terms of a commercial product created by knowledge assets. *Indeed, at a later point in the teleconference, it was pointed out that software alone was worthless and only acquired value when combined with quality management, products and corporate culture.*

The relationship between legal recognition as an intellectual property device and enhanced value for a knowledge asset was mentioned later by several speakers. One raised the particular situation of the domain name in Canada, which actually does not enjoy intellectual property protection, but, in the view of the speaker, should, since it could provide significant value to a start-up company. The concern about the legal position of domain names as knowledge assets in Canada was specifically echoed and cited as a priority by three later speakers.

A later speaker cautioned that law reform might be needed in order to curb the consequences of current intellectual property regimes: the possibility of an anti-competitive market being created as well-funded participants make use of business method patents was specifically articulated.

Equity vs. non-equity financing involving knowledge assets

One perspective from Nova Scotia was that regions where smaller companies dominate would prefer to develop debt financing models because they want to

maintain control of their businesses and not diffuse their equity. Although there seemed to be agreement with this ambition, the reality was described as a reliance on equity for small business because there are more trade secrets and know-how involved in knowledge-based businesses, and equity is the more efficient way to finance these types of intellectual property assets. For Atlantic Canada, the participants agreed that the ratio of 55/45 equity/non-equity resulted by the preliminary survey was well understated for the region. The ratio in Atlantic Canada was thought to be more in the order of 90/10 equity/non-equity for financing knowledge-based businesses.

As the discussion moved across the country, other speakers identified the reliance over equity financing cited by the Halifax panel to be consistent with the experience of start-ups in every region of the country. They also expressed similar frustration about the inability of small companies to secure debt financing, which they also much preferred. On the other hand, one proprietor of a small business sympathized with the reluctance of banks to provide debt financing for small companies with intangible assets — which are hard to value — attributing the inappropriateness of bank funding to the structure of banks. Moreover, one Atlantic participant pointed out much later in the teleconference that the experience of obtaining equity financing itself sometimes contributed positively to start-up companies because the business and managerial expertise of a venture capitalist, for example, would be contributed to the start-up. This was seen as a very positive spin-off of the equity relationship, both for the start-up and the capitalist. Picking up on that, another speaker made the point that a venture capitalist might have five start-ups in the stable, whereas a bank or major lending institution would have 50 and, therefore, even less incentive to develop a working relationship that contributed as positively to the welfare of the start-up.

In addition, it was pointed out that maturing beyond a start-up would initially mean being able to raise equity capital on individual knowledge assets, rather than the whole company, before being able to move significantly toward debt financing. Several people echoed this tendency to view the whole company rather than being able to differentiate particular “assets” in a knowledge-based business.

It was pointed out that this emphasis on equity financing rendered moot the question of whether law reform can facilitate securitization of knowledge assets: business is not relying on debt financing for companies financed by these assets. Moreover, another observation made from the point of view of a large software distributing company was that current license agreements have worked well in the cases where certain licensees have been specifically permitted to pledge, assign or otherwise use the licensed asset and then to have subsequently no financial difficulties. This is because the consent to such pledge, transfer or licence has been specifically dedicated upon the lender’s recognition of the

prior claims of the software distributor licensor. Since there have been no difficulties with the present arrangements from the perspective of such large software organizations, there would be real resistance in that community if law reform made it more difficult for such organizations to maintain the integrity of their software assets.⁴²

The reliance on equity was further explained as systemic because knowledge assets (and intellectual property) are hard to value, hard to assess in terms of competitive position, have a short shelf life and are difficult to realize upon in a downturn. These inherent characteristics cause the risk to look like an equity risk in the eyes of the investors and they therefore demand equity in return. The real difficulty in relying upon knowledge assets in an economic downturn was identified as the fact that the bulk of the knowledge assets lie with the people in the venture — and when the organization runs into trouble, the people jump ship. Moreover, another participant pointed out that individual knowledge assets are very difficult to sell because they are worth the most together — and this makes it unattractive to hold a security interest in them.

Several explanations for the reporting of debt financing experiences in the face of these indicators for equity financing: the need to implement “bridgearounds” would imply non-equity financing; convertible debt-type financing can allow companies to get financing while deferring the difficult valuation questions during the birth of a company. Another speaker pointed out that equity financing is harder to back out of — whereas with debt financing, you can be involved for the period of the loan and then get your money back and be out of the business. Moreover, for all the reasons that valuing the knowledge assets for debt financing is difficult, establishing the value of an equity position in a company heavily involved in knowledge assets is equally difficult.

Are there perceived to be more technical obstacles to obtaining non-equity than equity financing?

The first participant responding to this question immediately raised the issue of the interaction between the provincial personal property security registration regimes and the federal intellectual property registration regimes as a technical impediment to debt-financing of knowledge assets. A later speaker highlighted this difficulty, particularly in the context of debt-financings based on knowledge assets in traditional industrial business contexts.

A later speaker pointed out that while other frailties such as the nature of intellectual property and its enforcement are much more difficult to solve through law reform, legislating changes to improve the registrability of such assets is relatively easier and should be undertaken. Such reform would create more certainty in the system, which would benefit all the players. All the speakers who discussed this issue preferred a nation-wide

solution, although some called for a federal solution and others called for a harmonization of the provincial statutes with the federal (to be achieved, under one suggestion, by allowing the provincial registries to take precedence over the federal ones).⁴³

Despite the mention of difficulties in enhancing enforceability through changes in the law, later speakers indicated that they would like to see attempts to revise the legislation to create more efficient and effective enforcement of intellectual property rights. The perspective of the bankers when considering knowledge-based businesses was expressed by one participant as not only a reluctance to deal with equity, but also an equal uncertainty in dealing with intellectual property as security. The participant explained that in such debt relationships the lender must place reliance on the borrower in situations where the bank could find that all the intellectual property on which it relied in advancing the loan has been subsequently “lent away” by the borrower. From this perspective there was also a call for clarification in the law regarding the priorities of sub-interests in knowledge assets. A later speaker describing the banks’ position cautioned that they want to avoid coming in and taking over whole businesses — which is generally what is required to realize upon security in a knowledge-based business.

An example of the more intransigent difficulties in achieving effective change to the structure of investing in knowledge assets through law reform was given as the pervasive effect of culture, rather than law, in establishing valuations for the assets concerned. It appeared that the speaker advocated education and communication as agents of change, rather than law reform. The importance of the structure of law in creating wealth was raised in response by another speaker. However, other speakers claimed that the many difficulties surrounding financing knowledge-based businesses were not based in difficulties with the law. Another, non-legal difficulty was the lack of expertise, perhaps particularly in Canada, for valuing some of the cutting edge technology in areas such as biotech.

Because there is so much equity investment in the uncertain environment of knowledge assets, it was pointed out the equity interests are also being more creatively handled than in deals involving “traditional” assets. The speaker asserted, therefore, that many knowledge-based equity deals are as complex as their non-equity counterparts. This perspective was echoed by another participant, representing a much smaller business.

From the perspective of a start-up company, it was suggested that making it cheaper and easier to obtain traditional intellectual property registrations would help small business more easily quantify or provide documentary evidence of knowledge assets and therefore give them an advantage in subsequently seeking to leverage that knowledge. On the other hand, another speaker identified the whole intellectual property asset as the problem: very unpredictable and hard to enforce.

Several speakers mentioned keeping an eye on the experience and intentions of the United States when considering changes to the Canadian legal environment. There was a call to consider simplifying the existing legislative regime, if not scrapping it and developing a better, more streamlined, modern approach.

Thus, the qualitative evidence gathered through this national canvass of business opinion from across Canada did not yield results dissimilar from the results of the survey. The process of the teleconference reinforced views also gathered from the surveys and provided the opportunity for more detailed evidence of the views of the Canadian business community.

Conference consultation

Concept

The final facet of the Law Commission’s consultation with concerned stakeholder involved the two-day conference held in London, Ontario. The conference was deliberately designed to be fairly small and was organized to try to permit the speakers and the attendees to examine the issues together over a full day and a half.⁴⁴ There were 57 attendees, of whom 19 had prepared papers to present as part of the proceedings.⁴⁵ In addition, eight people (one of them already a speaker) had received papers in advance and came prepared to provide commentary. The observations of the Conference presented here, then, represent, for the first time, the responses and contributions gathered from the 38 participants in this national conference who did not have the opportunity to present papers.

This final phase of the research began by allowing all the conference attendees to watch the national teleconference just described. Later, on the first evening of the conference, Professor Richard McLaren provided a keynote address setting out a possible new approach to secured interests in intellectual property from the perspective of the Commonwealth on the first evening⁴⁶ and the Honourable Marybeth Peters, Register of Copyright, United States, provided an overview of the recent American developments on the second day.⁴⁷ The other speakers were grouped around four themes: first, the Canadian legal framework for leveraging knowledge assets; second, business, economic and valuation issues; third, the comparative experiences of Australia, the United States, the United Kingdom and the European Union; and, finally, governance issues and possible solutions. The speakers were legal academics, practicing lawyers, business academics, an economist and a valuator. As the themes suggest, they were drawn together from all over the world. The other attendees, including the commentators and moderators, were legal academics (and a graduate student) and practicing lawyers for the most part, as well as government policy makers, and the Executive Director of the Canadian Advanced Technology Association. As more than one attendee later noted, the legal academics and practitioners spanned different areas

of practice, from intellectual property to commercial and secured transactions.

Having heard the national discussion from the business leaders on the teleconference and having listened to and participated in the presentations of the prepared papers, each of the conference attendees was polled for her or his reflections by Nathalie Des Rosiers, President of the Law Commission of Canada, during the last session of the conference. These comments were recorded and later transcribed. The following observations were gleaned from them.

Observations of the attendees

On the nature of knowledge assets

It was pointed out that any enhancements to the law governing secured interests in intellectual property must continue to take account of the traditional trade-off in this area of the law between incentives for creators and enhancing public access to knowledge in order to strengthen the opportunities for intellectual and industrial development as a society. Half a dozen other attendees later specifically echoed this concern, both on national and international level. One attendee stated although the government could intervene in the valuation process for knowledge assets, it should not.

On the existence of legal obstacles to obtaining financing on the basis of knowledge assets

There was discussion of the feasibility of a federal or provincially based national registration system for intellectual property rights and interests. One attendee pointed out that if, as one analyst asserted, the provincial registration systems favour lenders and the federal system favours the original rights holder and subsequent equity purchasers, then the evidence of the business teleconference would suggest that the strengthening of the federal system would seem to make more sense in the present climate. Another attendee pointed out that Canada would be a global pioneer if it were to develop an intellectual property registration system that was based on the rights of debtors rather than being wholly asset-based as other security registration systems are. On the other hand, an asset-based system that could accommodate intellectual property interests will almost inevitably be hopelessly unwieldy. Several other attendees were cautious about embracing solutions involving registration since that could well impose more formality and expense.

Although a number of papers at the conference and the discussions with people during the teleconference tended to play down or dismiss the law as a factor in the financing of knowledge-based business transactions, one attendee stated that the law remains very important in creating the infrastructure for business and that infrastructure must remain current and responsible. Perhaps the valuation of the assets is a function of the business environment and should not be dealt with by legal means, but the infrastructure to support the business decisions

being made should be made transparent to all business stakeholder. Another attendee concurred with the view that strengthening the infrastructure will create more clarity and help those seeking financing to more definitively demonstrate their eligibility for debt financing.

Taking steps based on the existing legal situation may well be desirable, another attendee agreed, but such steps should be viewed only as next steps — not as solutions. These problems need to be viewed in the context of a changing system which demands creativity and, ultimately, new legal approaches. On the other hand, these new approaches need to be cognizant of international relationships and developments.

One attendee queried whether there was a public policy reason to seek to eliminate barriers to lending in knowledge-based sectors: perhaps increased lending activity would not be wise for lenders. Another attendee pointed out that care must be taken to distinguish between knowledge-based assets (in the portfolios of any company or organization) and knowledge asset intensive companies: the policy considerations in the two cases may not be identical.

Another attendee, not himself a banker, expressed understanding for the reluctance of bankers to get involved in transactions based on knowledge assets: he cited their greater need for success rates in the businesses in which they become involved given the steady income streams generated from debt financing. For venture capitalists, their portfolios, based on the varying returns from their equity positions in the companies in which they are involved, can encompass both high performers and losers.

On the preference for equity-based financing over non-equity based

One attendee asked why there was so much evidence that banks and lending institutions have difficulty valuing knowledge assets when Revenue Canada appears to have little difficulty valuing the same kinds of assets for tax purposes. Another attendee felt that this was mixing apples and oranges since Revenue Canada is never really involved in realizing upon the assets for which it establishes tax valuations.

Again, the participants at the conference did not voice views that were not also part of the perspectives obtained through the survey. However, the views expressed at the conference had the advantage of having heard a plethora of possible law reform options described by the speakers at the conference and therefore the conference attendees' remarks could be couched in the context of specific law reform ideas. Observations such as the attention to the public access facets of the traditional intellectual property devices were highlighted by a number of participants at the conference and yet such perspectives do not seem to have an echo anywhere within the Law Commission's subsequent Report. The conference participants, having heard about a number of proposals, specifically voiced various concerns around

proposals to amend the registrations systems of either the provincial secured lending systems or the federal intellectual property regimes and also articulated and reinforced the observations of the teleconference participants, whom they had seen, that the problems surrounding the leveraging of knowledge assets go beyond only intellectual property issues and, certainly, beyond the specific concerns of problems with registration of interests for security.

Discussion and Recommendations

This empirical investigation undertaken on behalf of the Law Commission of Canada sought to provide data from relevant stakeholder in order to test the three hypotheses indicated at the outset. Since such empirical data had not been gathered previously on this topic in Canada, the study was certainly exploratory. The empirical part of the investigation was contemporary with the gathering of the expert scholarly research into possible options for law reform that eventually informed the Law Commission's *Leveraging Knowledge Assets Report in 2004*. As such, it is certainly useful to reflect upon the Law Commission's recommendations for law reform in light of the evidence of business opinion and concerns gathered while the recommendations were in their formative stages. However, implementation of the Commission's recommendations must be considered in light of current realities. Therefore, it is also useful to consider the data from the empirical portion of the Commission's investigations in light of the indications they provide meaning, as they did, a preliminary part of the Law Commission's larger consideration of law reform in this of the need to undertake further empirical research embarking upon consideration of implementation of the Commission's final recommendations.

The feedback received from the survey instrument, captured the views of both business people and legal advisors (lawyers, trademark and patent agents), and the national teleconference indicated a preponderance of opinion and experience supporting the hypothesis that the value created by businesses in the new information economy is not adequately captured by existing legal concepts and, in particular, that most conceptions of intellectual property are too limited to serve the needs of this new knowledge-based business. A number of conference attendees, however, cautioned against moving too quickly to capture that additional value in formal intellectual property devices without carefully considering the implications of such changes on the circulation of information and ideas in society that has traditionally been an important part of intellectual property policy.

The preponderance of evidence from the business community across Canada supported the view of the concept of knowledge assets as wider than just core intellectual property as traditionally defined. The evidence of the business realities related to leveraging knowledge assets point to future problems if the perceived chal-

lenges related to the core intellectual property devices, which were frequently acknowledged by the business participants, cause policy-makers to overlook the larger issues beyond the intellectual property triad of patent, copyright and registered trade-mark.

The evidence gathered that was relevant to the second hypothesis being tested revealed a complex picture. Again, the evidence of the respondents to the survey and of the participants in the teleconference tended to support the hypothesis that *businesses in Canada face significant legal obstacles when attempting to obtain security for financing on the basis of knowledge-based assets*. However, as one of the international conference attendees pointed out, asking the right questions is a very important step in developing and evaluating policy options. In this case, the evidence of the business community pointed to virtually equal challenges for the lending community in extending debt financing to businesses on the security of knowledge assets as to those attempting to raise funding on the basis of such assets. As one of the conference attendees pointed out very succinctly, to develop law reform policy in this area, there must be further consideration of the implications of adjusting the existing positions of both borrowers and lenders with respect to knowledge-based assets.

Many opinions pointed to issues of valuation as lying at the heart of the difficulty—and, as some observed, valuation issues are also the area of greatest risk for those who extend the capital for equity financings involving knowledge-based assets. Evidence from all three data gathering instruments (the survey, the teleconference and the conference consultation) indicated that there is a challenge in the emerging business environment in trying to distinguish financing based on particular knowledge-based assets and financing knowledge-based businesses. The evidence of this preliminary investigation indicates that this distinction deserves further investigation and analysis before law reform is instigated.

In its 2004 *Leveraging Knowledge Assets Report*, the Law Commission states:

There is no evidence that traditional financial institutions decline opportunities for IPR-secured lending because of an irrational lack of appreciation of the collateral value of IPRs compared with other forms of movables. On the contrary, despite other impediments, specialized IPR-based lending techniques by lenders in industries such as film are emerging [footnote omitted]⁴⁸

This is an ambiguous declaration and this empirical investigation offers no data relevant to the rationality, or lack thereof, in the appreciation, or lack thereof, of the collateral value of anything from the perspective of traditional financial institutions. However, it is equally the case that the Report cites no evidence of its own in support of the assertion that traditional financial institutions do not decline to lend based on the security of IPR. It is interesting to note that the sources for the reference to "specialized IPR-based lending techniques ... in industries such as film" are to studies of that industry in

the United Kingdom and the United States, not Canada.⁴⁹

On the one hand, the empirical evidence gleaned from this survey, this national teleconference and these Canadian conference participants about the concerns of the Canadian business community certainly point directly to a perception in the business community that it is more difficult to leverage knowledge assets in Canada than to leverage other kinds of assets. It would appear to be important to examine further this apparent discrepancy: if indeed it is true that financial institutions in Canada provide opportunities for financing equally on the basis of knowledge assets as on other assets, then it seems important to address the perceptions articulated in the business community, documented through this research, that they do not.

On the other hand, the Commission’s claim appears to be limited to the claim that the financial institutions in this country provide financing equally on the basis of assets evidenced by intellectual property registrations as on the basis of other assets. This is a different claim — and it may well be that this willingness to finance on the basis of intellectual property registrations is completely consistent with the observations documented by this research that financial institutions are not as amenable to financing based on knowledge assets as on other assets. The business community, as evidenced by the data gathered in this research, is looking to leverage knowledge assets both formalized through intellectual property registrations and not formalized through intellectual property registrations. Again, if this is the case, the issue of a divergence between the views of financial institutions and the expectations of the wider business community in Canada deserves a further airing.

The legal community involved in this exploration (as respondents to the survey and attendees at the conference) was very much tempted by notions of reforming the registration systems for personal property security and intellectual property in order to bring them into greater harmony and make registration more effective for ordering the security interests based on knowledge assets. Indeed, this is the general thrust of many of the papers delivered at the conference. However, the evidence of those who responded in the survey as having experienced failed debt transactions did not identify registration difficulties as reasons for the failures: indeed, difficulties with registrations were cited more often amongst the respondents who were discussing successful debt financings.

Indeed, the Law Commission’s emphasis in its Report on the centrality of the registration of secured interests in reducing uncertainty in leveraging knowledge assets does seem to be premised on a certain perspective on the intellectual property regimes. In presenting its Recommendation 11, the Commission discusses unregistered copyright⁵⁰ which it presents as an alternative to registered copyright.⁵¹ From the perspective of intellectual property, this distinction appears challenging: there is only one copyright interest created in

Canada, since section 5 of the *Copyright Act* declares “copyright shall subsist in Canada, for the term herein-after mentioned, in every original literary, dramatic, musical and artistic work ...”⁵²

In an earlier explanation, the Report declares, without further cited authority, that

A source of uncertainty may arise in principle with respect to unregistered copyrights. Because registration is not a prerequisite to the existence of copyright, an assignee of an unregistered copyright faces the risk that the copyright was the subject of a prior assignment. The assignee can protect itself against this risk by registering the copyright, in which case its interest would prevail over any prior unregistered interest.⁵³

Unfortunately, the situation in copyright is not so straightforward as the authors of the Commission Report suggest.⁵⁴ Assignment of copyright is governed under section 13(4), which declares:

The owner of the copyright in any work may assign the right, either wholly or partially ... but no assignment or grant is valid unless it is in writing signed by the owner of the right in respect of which the assignment or grant is made, or by the owner’s duly authorized agent.⁵⁵

Registration of the copyright interest merely raises the presumption that the interest registered is *bona fide*.⁵⁶ Therefore, it appears that uncertainty does indeed arise around value of the Register in the copyright environment. There is no legal distinction between “registered” and “unregistered” copyright in Canada; there is only “copyright” associated with works and copyright interests flowing from the work that may be evidenced through registration pursuant to the *Copyright Act*.⁵⁷ Even where there has been registration of copyright in connection with particular works, there are moral rights attaching to those works, also pursuant to the *Copyright Act*, which are not capable of registration under the Act and yet adhere to the works throughout the term of copyright.⁵⁸ The problem of moral rights was explored by David Lametti in the address he gave to the conference in 2001, together with his conclusion that moral rights “are not property rights and should not be able to form the subject matter of real security”.⁵⁹

While ten of the thirteen recommendations from the Law Commission of Canada involve amending federal legislation to improve registration of security interests,⁶⁰ only one respondent in this study, in a group representing more than one hundred and fifty business transactions, directly opined, as reported above, that “the federal legislation needs to be amended to contemplate the granting of security interests in IP”. The perspective of the large and small business leaders involved in the teleconference seemed to confirm the findings from the survey that reform of the security regimes is not seen by any means as a universal or obvious antidote to the problems of financings based on knowledge-based assets. Rather the structure of the assets and the firms that are based largely upon such assets was identified as different from traditional structures and that this difference played a larger part in the struggle to finance businesses involved with knowledge assets. Indeed, an observation

by one of the conference attendees (mentioned above) should be noted in this context: that most business leaders do not now understand the need to register intellectual property interests even with the registration possibilities that now exist. Therefore, it would appear that further investigation of possibilities of reforming the intellectual property and secured transaction registration systems should be cautiously explored while continuing to investigate the possibility of other, more effective and efficient, ways to assist the transition of Canadian business to the knowledge-based economy.⁶¹ As an attendee at the conference suggested, the ongoing exploration of ways to assist the transition to the new economy in Canada should not focus only on law reform solutions, nor necessarily on intellectual property or secured transactions law reform, but should rather keep open options such as tax incentives, direct government investment and so on.

The evidence of this empirical portion of this study undertaken through the aegis of the Law Commission of Canada, particularly from the business community, indicates support for the third hypothesis that *there are, indeed, discernable differences between stakeholder in the Canadian business community on issues that relate to intellectual property such that it is impossible at this time to discern a consensus of business opinion which would point to any particular legal reform of the regime of secured transactions.*

Thus, as the policy-makers continue consideration of whether law reform can play a part in encouraging the effective and efficient transition to a knowledge-based economy, regard should be had to this evidence that the business community is not united on the type of legal intervention that would be most effective in assisting in its transition. Moreover, there does not appear to be long advocacy for any particular legal solution from one discernable business constituency. Rather, there is to be a cautious openness to considering possibilities for legal solutions to perceived problems.

It must also be noted that many business commentaries in the study emphasized the preponderance of equity-based approaches to financing in the new knowledge-based environment, rather than reliance on debt

financing. Law reform directed toward enhancing the knowledge-based economy should be cognizant of these observations.

Conceived as part of the Law Commission of Canada's exploration of the issues, this empirical study was a pilot study, asking new questions and employing several novel methodologies in seeking to provide answers informed by a variety of stakeholder. While anecdotal evidence such as the foreign example of David Bowie's intellectual property interests, mentioned by Howard Knopf,⁶² and then picked up in the *Leveraging Knowledge Assets Report of the Law Commission*,⁶³ is interesting, and indirectly related to the question of leveraging knowledge assets in Canada, the systematically gathered evidence of approximately one hundred Canadian business people and their advisors, solicited through surveys and direct consultation via teleconference and face-to-face conference consultation, must be considered more directly relevant to the question of the value of reducing uncertainty in the Canadian intellectual property environment through addressing problems in the registration of security interests. *It is surely important that direct empirical evidence gathered in Canada be considered when weighing the advantages and disadvantages of proposed law reform in Canada. Again, while empirical evidence of other jurisdictions, such as the United States, is indirectly interesting, and sectorial studies are useful (and the interviews conducted by Ronald Mann in 1999, and referred to by the Commission in its report, are an example of both the former and the latter), the efforts of the Law Commission in 2001 to canvas business opinion on a national scale and across sectors did bear fruit, as described in this account, and that evidence deserves the attention of Canadian policy-makers in considering the recommendations of the Law Commission in its Report.*

*Moreover, the results of this empirical study demonstrate that this empirical approach, if implemented on a wider scale, can usefully inform the process of law reform. Further involvement of all segments of the business community*⁶⁴ *in the ongoing process of law reform should complement consideration of any of the various legal solutions canvassed by legal scholars.*⁶⁵

APPENDIX A: THE SURVEY

A transcript of the survey instrument used in this study follows. The original survey was distributed on the World Wide Web.

Section I: Knowledge Assets and their Leverage

1. What does the term “Knowledge Asset” mean to you (please tick all that apply)?

- ☐ Patents
- ☐ Copyrights
- ☐ Trademarks
- ☐ Trade secrets
- ☐ Other types of confidential information
- ☐ Plant breeders’ rights
- ☐ Integrated circuit topographies
- ☐ Industrial designs
- ☐ Other, please specify

Please Note: For this survey, the term “Leveraging Knowledge Assets” refers to any attempt made to secure funding on the basis of existing Knowledge Assets.

2. Within the last three years, have you been involved with any attempt to leverage knowledge assets? (If you are responding NO to this question, please go directly to section III (question 22)).

- ☐ Yes
- ☐ No

3. In how many transactions involving attempts to leverage knowledge assets have you been involved in the past three years?

- ☐ One
- ☐ Two
- ☐ Three
- ☐ Four
- ☐ Five or more

4. What type of funding was pursued? (Tick all that apply)

- ☐ Licencing
- ☐ Angel investor(s)
- ☐ Venture capital
- ☐ Government funding
- ☐ Non-equity based funding
- ☐ Other (please specify)

5. If you have been involved in equity-based transactions (licensing, angel investors, venture capital, government funding) in the past three years, please tell us why you have chosen this mode of financing for knowledge assets:

6. If you have been involved in equity transactions, please indicate the capacity of your involvement with leveraging knowledge assets: (Tick all that apply)

- ☐ Employee of a firm raising capital
- ☐ Employee of a firm providing capital
- ☐ Legal representative of a firm raising capital
- ☐ Legal representative of a firm providing capital
- ☐ Other (please specify)

If you have been exclusively involved in equity-based leveraging of knowledge assets, please proceed to Section III (question 22).

Section II: Application Process for NON-EQUITY BASED FUNDING

Questions 7 through 12 ask you to discuss a successful loan application based on knowledge assets. If you have not had such a successful experience, please go to question 13.

7. In answering the following questions based on one of your successful experiences with leveraging knowledge assets in a secured transaction, please indicate what role you were playing:

- ☐ Employee of borrowing firm
- ☐ Employee of lending firm
- ☐ Legal representative for borrowing firm
- ☐ Legal representative for lending firm
- ☐ Other (please specify)

8. The following sentences describe the non-equity based loan application process for knowledge-based assets AS COMPARED TO THAT FOR OTHER TYPES OF ASSETS. Please indicate your level of agreement with each.

- Scale:
- 1 — Strongly Disagree
 - 2 — Disagree
 - 3 — Neither Agree nor Disagree
 - 4 — Agree
 - 5 — Strongly Agree
 - 6 — N/A

- Questions:
- RELATIVE TO other assets, it was very difficult to value the firm’s knowledge assets.
- RELATIVE TO other assets, registering the knowledge assets was not a straightforward process.
- RELATIVE TO other assets, the process of borrowing funds on the security of knowledge assets was complex.
- RELATIVE TO other assets, the legal/regulatory requirements were more complex.
9. If you think the legal/regulatory requirements could be simplified or improved, what specific law reform measures would help?
10. What was the dollar range applied for?
11. From first contact between borrower and lender, how long did the loan application process take? (Time in months.)
12. If you registered the interest in the knowledge asset involved in this transaction, did you (please tick all that apply):

- ☐ Register at the Canadian Intellectual Property Office in Ottawa
- ☐ Register in a Provincial Registry
- ☐ Not applicable
- ☐ Don’t know
- ☐ Other (Please Specify)

Questions 13 to 21 ask you about non-equity based loan applications involving knowledge assets that were UNSuccessful. If you have not had experience of such unsuccessful transactions, please go to question 22 (Section III).

13. In answering the following question, based on one of your UNsuccessful experiences with leveraging knowledge assets in a secured transaction, please indicate what role you were playing.

- ☐ Employee of borrowing firm
- ☐ Employee of lending firm
- ☐ Legal representative for borrowing firm
- ☐ Legal representative for lending firm
- ☐ Other (please specify)

14. The following sentences describe the non-equity based loan application process for knowledge-based assets AS COMPARED TO THAT FOR OTHER TYPES OF ASSETS. Please indicate your level of agreement with each.

- Scale:
- 1 — Strongly Disagree
 - 2 — Disagree
 - 3 — Neither Agree nor Disagree
 - 4 — Agree
 - 5 — Strongly Agree
 - 6 — N/A

- Questions:
- RELATIVE TO other assets, it was very difficult to value the firm’s knowledge assets.
- RELATIVE TO other assets, registering the knowledge assets was not a straightforward process.
- RELATIVE TO other assets, the process of borrowing funds on the security of knowledge assets was complex.
- RELATIVE TO other assets, the legal/regulatory requirements were more complex.
15. If you think the legal/regulatory requirements could be simplified or improved, what specific law reform measures would help?
16. What was the dollar range applied for?
17. From first contact between borrower and lender, how long did the loan application process take? (Time in months.)
18. Would you attribute the failure of this loan application process to the knowledge-based nature of the assets?
- ☐ Yes
 - ☐ No
19. If you responded NO to the above question, to what would you attribute the failure of the loan application process?
20. If you responded YES to question 18, what type of knowledge assets were involved?
- ☐ Patents
 - ☐ Copyright
 - ☐ Trademarks
 - ☐ Trade secrets
 - ☐ Other types of confidential information
 - ☐ Plant breeders’ rights
 - ☐ Integrated circuit topographies
 - ☐ Industrial designs
 - ☐ Other (please specify)

21. If you responded YES to Q18, what was the nature of the problem?

Section III: Information About Yourself

22. What is your Current Job Designation?
- ☐ CEO/President
 - ☐ CFO
 - ☐ Corporate counsel
 - ☐ Lawyer in private practice
 - ☐ Other (please specify)
23. In comparison with other assets, does the nature of knowledge assets discourage you from attempting to leverage them?
- ☐ Yes
 - ☐ No
24. If you responded YES to the question above, please explain why:

25. How INVOLVED are you with financing processes?

- 1 — Not at all involved
- 2 — Marginally involved
- 3 — Moderately involved
- 4 — Highly involved
- 5 — Directed the process

26. How KNOWLEDGEABLE are you about financing processes?

- 1 — Not at all involved
- 2 — Marginally knowledgeable
- 3 — Moderately knowledgeable
- 4 — Highly knowledgeable
- 5 — Expert

Thank you for your participation!

Notes:

¹ W. Adams and G.G.S. Takach, "Insecure Transactions: Deficiencies in the Treatment of Technology Licences in Commercial Transactions Involving Secured Debt or Bankruptcy" (2000) 33 Can. Bus. L.J. 321; J. Lipton, "Secured Finance Law and Practice in the Global Information Age" (2000) 11 J. Bank. & Fin. L. & Pract. 17; J.D. Lipton, "Security Interests in Electronic Databases" (2001) 9 Int'l J. L. & Inf. Tech. 65; J. Lipton, "Security Over Australian Intellectual Property" (1999) J. Int'l Bank. L. 277; J. Lipton, "Security over Information Products" (2000) 11 Aus. I.P.J. 23; J. Lipton, *Security Over Intangible Property* (Sydney: LBC Information Services, 2000). Since that time, in addition to articles published as a result of the efforts of the Law Commission of Canada, as discussed below, Jacquie Lipton, in particular, has continued her work in this area. See e.g. J. Lipton, "Intellectual Property in the Information Age and Secured Finance Practice" (2002) 24(7) Eur. I.P. Rev. 358.

² The dramatic demise of the Enron Corporation in the United States, for example, did not become public until after this investigation had been launched. As Howard Knopf pointed out in the Foreword to his collection of papers from the Law Commission's conference, "in the months since the conference and the submission of these papers, there has been a precipitous collapse in the value of several technology based businesses. The issues raised [by the papers] are at least as important in difficult times as they are in periods of growth and prosperity" (H. Knopf, ed., *Security Interests in Intellectual Property* (Toronto: Carswell, 2003) at vi). Those situations appeared to revolve, at least in part, around the valuation and securitization of a business founded almost exclusively upon knowledge assets. Since then, some more recent commentary has focused on these related kinds of issues. See e.g. Robert B. Ahdieh "Making Markets: Network Effects and the Role of Law in the Creation Of Strong Securities Markets" 76 S. Cal. L. Rev. 277.

³ The authors wish to gratefully acknowledge the input from Professor Antia Kersi of Ivey School of Business, UWO, who was part of the team in the initial design and administration phases of this empirical study. The authors also gratefully acknowledge research assistance for this paper provided by former law student Jonathan Mesiano-Crookston and current law student Pamela Krauss.

⁴ A quotation included under "Part 3. Roles" in the internal Planning Document prepared by the Commission as background to the research (draft dated May 25, 2001).

⁵ This portion of the investigation reflected the Law Commission's intent "to focus on the intellectual property regime which presents particular challenges for investors since all experts agree that there is uncertainty in the interplay between the federal intellectual property statutes and provincial statutes dealing with registration of security interests in personal property". Quotation again taken from the internal Planning Document prepared by the Commission cited above.

⁶ Knopf, *supra* note 4. The mapping of papers given at the Conference in November 2001 into the published collection edited by Howard Knopf is not perfect. At the conference, David Lametti delivered a paper entitled "The Concept and Conceptions of Intellectual Property as the Object of Real Security in Quebec Civil Law" which did not find its way into the eventual published compilation. Instead, as described in the Foreword to the published collection "Mr. Louis Payette ... attended the conference as a spectator [and later adapted] a chapter of his remarkable treatise on the

Quebec Civil Code, which had only recently published in French in its second edition and contains a very important and relevant chapter on intellectual property from the civil law point of view [...] to the context of the LCC's program" (*Ibid.* at vii).

⁷ Law Commission of Canada, *Leveraging Knowledge Assets: Reducing Uncertainty for Security Interests in Intellectual Property* (Ottawa: Law Commission of Canada, 2004) [Leveraging Knowledge Assets Report]. The report makes thirteen recommendations, chiefly revolving around the idea that all federal intellectual property statutes should create title registries such that registration, on a first to register basis, would be conclusive evidence of legal title against unregistered transfer.

⁸ In section 1.1, the Commission indicates "the report builds directly on a series of research papers solicited by the Law Commission and presented at a 2001 conference entitled *Leveraging Knowledge Assets: Security Interests in Intellectual Property*" (*Ibid.* at 2 [footnote omitted]). The 23 item Bibliography to the Report includes 11 papers from Howard Knopf's 2002 compilation. In the Editor's Note to that book, it is indicated that the 18 papers in that collection primarily reflect the law "as at the date of delivery, namely November 16 and 17, 2001" (*supra* note 4 at iii).

⁹ The failure to refer to the empirical work undertaken at the direction of the Commission contemporaneously with the Conference, which was the catalyst for the papers, is surprising because the papers were acknowledged as formative in the Report's recommendations. The omission is all the more surprising because the Report does refer to earlier empirical work limited to particular sectors of business. For example, the Report states: "Empirical research indicates that general institutional lenders are increasingly prepared to extend IPR-secured financing even at the product development stage if venture capital financing is also in place so as to enable the bank to informally rely on the venture capitalist's expert and specialized judgement" (*Leveraging Secured Assets Report*, *supra* note 9 at 25, citing Ronald J. Mann, "Secured Credit and Software Financing" (1999) 85 Cornell L. Rev. 134). Ronald Mann's paper is based upon twenty-nine informal interviews conducted prior to 1998 in the United States with "industry participants, including lenders in both the Massachusetts Route 128 corridor and Silicon Valley, software companies that borrow money to develop software, and large software companies that must accommodate their customers' need for funds to facilitate the acquisition of software" (*Ibid.* at 135. See also notes at 134).

¹⁰ D. Vaver, *Intellectual Property* (Concord: Irwin Law, 1997).

¹¹ R.G. Howell, L. Vincent & M.D. Manson, *Intellectual Property Law: Cases and Materials* (Canada: Edmond Montgomery Publications, 1999).

¹² L.E. Harris, *Canadian Copyright Law*, 3rd ed. (Toronto: McGraw-Hill Ryerson, 2000) at 2.

¹³ E. Mackaay & Y. Gendreau, *Canadian Legislation on Intellectual Property* (Toronto: Carswell, 2002).

¹⁴ S. Burshtein, *The Corporate Counsel Guide to Intellectual Property Law* (Toronto: Canada Law Book, 2000).

¹⁵ *Leveraging Knowledge Assets Report*, *supra* note 9 at 3.

¹⁶ *Ibid.* at 4.

¹⁷ *Ibid.* at 3-4.

¹⁸ The Commission itself acknowledges the existence of what the Report terms “provincial trade-marks” in footnote 14 to section 1.3. Indeed, in section 1.3 itself, the Report refers to “unregistered trade-marks used within a province” (*Ibid.* at 3). The footnote goes on to acknowledge that “federal and provincial trade-marks are conceptually distinct items of collateral”. However, the Report does not explicitly recognize that what it is terming “unregistered” or “provincial” trademark is actually grounded in the tort of passing off in the common law jurisdictions of Canada. And, indeed, as the footnote concludes, “a mark may be protected by provincial law even though it is not registered under the [federal] *Trade-marks Act*”, because, although the Report does not cite it, this is precisely what s.10 of the *Trade-marks Act*, R.S.C. 1985, c. T-10 makes clear:

Where any mark has by ordinary and bona fide commercial usage become recognized in Canada as designating the kind, quality, quantity, destination, value, place of origin or date of production of any wares or services, no person shall adopt it as a trade-mark in association with such wares or services or others of the same general class or use it in a way likely to mislead, nor shall any person so adopt or so use any mark so nearly resembling that mark as to be likely to be mistaken therefor.

¹⁹ The Commission, in footnote 14 to section 1.3 of the Report, acknowledges that there is caselaw supporting the proposition “that an action cannot be brought on the basis of provincial law [i.e., an action grounded in the tort of passing off] where the [indicia in question also constitute] a mark ... registered under the *Trade-Marks Act*”. The Report is actually silent on the specific question of the registerability of the indicia in provincial secured lending systems. The Commission might, for example, have considered the implications of cases such as *Brant Avenue Manor Ltd. Partnerships v. Transamerica Life Insurance Co. of Canada* (2000), 2 D.L.R. (3d) 94, 1 P.P.S.A.C. (3d) 73, 2000 CarswellOnt 1568.

²⁰ Indeed, in the paper by Louis Payette, “Security on Intellectual Property: A Quebec Viewpoint” included in Howard Knopf’s edition of collected papers from the Law Commission’s conference, the considerable complexities of the treatment of intellectual property rights under the *Quebec Civil Code* provisions are described (*supra* note 4 at 133–182). But, apparently unaccountably, this paper is not referred to by the Commission in its Report.

²¹ *Leveraging Knowledge Assets Report*, *supra* note 9 at 3.

²² And, for reasons that are not clear, the Commission seems to have focused in upon particular approaches even to those devices. In the paper prepared for the Commission’s conference by Janet Fuhrer and Timothy Borne, there is a review and evaluation of an initiative from the Canadian Bar Association to create an entirely new Intellectual Property Security Act at the federal level. This possibility does not appear to be canvassed by the Commission in its Report, nor is there a reference in the report to the Fuhrer and Borne article. See Janet N.M. Fuhrer & Timothy C. Borne, “The Draft Intellectual Property Security Act Revisited” in Knopf, *supra* note 4 at 227–246.

²³ See *Ibid.* at n. 4. The lack of perceived urgency in these problems that the lacuna in the formal literature of business portended appeared to be dramatically echoed in the lack of response to the surveys distributed as the first part of this empirical enquiry initiated by the Law Commission. Despite the use of multiple listings and multiple avenues of approach, as discussed further below, of the more than 2,000 surveys distributed, only 64 responses were received. Fortunately, as also further described below, the investigators were pursuing multiple avenues of participation from the Canadian business community and the teleconference and conference consultation elicited business opinion from coast to coast and multiple sectors of business.

²⁴ In addition to the economic downturn in 2000-2001 for equity-financed “E-businesses” to which reference has already been made, the destruction of the World Trade Centre in New York on September 11, 2001, occurred just as this research was being conducted. Finally, again as already mentioned, the collapse of Enron unfolded just as the final opportunities for business participation in this study were occurring. All these events have sent ripples and shock-waves throughout the business communities in North America and have preoccupied business leaders in Canada, and can be seen as another reason for reassessing the information investment environment

²⁵ Zoomed, a proprietary product of Zoomed, a division of MarketTools, Inc.

²⁶ In particular, all graduates of the Ivey School of Business who could be identified as also holding credentials in law were canvassed. As well, the membership lists of the Intellectual Property Institute of Canada were used. In addition, an attempt was made to contact all business leaders and lawyers who had corresponded with any of the authors or with the Law Commission of Canada at any time in the past on any of the issues involved in this research.

²⁷ For example, Nathalie Des Rosier, then President of the Law Commission of Canada, introduced the project to the forum of E-business lawyers and leaders hosted by the Faculty of Law at the University of Ottawa in the fall of 2001. Both surveys and conference notices were made available to participants at a conference on Copyright and Administrative Institutions hosted by the Centre de Recherche en Droit Public in Montreal in October 2001.

²⁸ The five “other” responses concerning the type of funding pursued were: asset purchases, joint venture, future revenue stream via multi-year sales agreements, assignment, and asset sale.

²⁹ Three of the lawyers simply indicated that the decisions were dictated by their clients.

³⁰ Of the twenty-one respondents reporting successful loan experiences, 44% (8) reported registering the interest in the knowledge asset involved at the Canadian Intellectual Property Office in Ottawa, 39% (7) reported registering in a provincial registry, and 24% (5) reported that neither registration was appropriate.

³¹ It was not, for example, possible to perform any chi square analyses on these data because the cell sizes were too small.

³² This question was asked as an open question. All figures were supplied by the respondents, without prompting or categories.

³³ It must be noted that only five of the nine respondents discussing unsuccessful applications provided useable responses to this question.

³⁴ Again, this data needs to be treated cautiously as there are only 6 responses to this question.

³⁵ The Richard Ivey School of Business was instrumental in providing technical support for this undertaking. All the sites except that in Halifax were part of Ivey’s teaching network and were provided to the project by Ivey. The Halifax site used facilities at Dalhousie University which were linked into the Ivey system for the 2 hour duration of the teleconference. Simultaneous translation was provided through the Montreal site by special arrangement through the Law Commission of Canada. This added technology was also linked into the Ivey system just for the 2 hour duration of the teleconference. The organizers are particularly grateful to Max Selitto at Ivey for managing the technical challenges posed by this special event. The teleconference was watched in real time by all members of the conference, as well as being made available both simultaneously and subsequently by webcast.

³⁶ The organizers wish to extend heartfelt thanks to these four firms for their support and assistance in arranging this ground-breaking event. Without their cooperation and commitment to innovative processes, it would not have been possible to bring together a national business consultation of this calibre. In particular, our thanks go to David Canton at Harrison Pensa (London), Stephen Kingston at McInnes Cooper (Halifax), Rick McLeod at McLeod Dixon (Calgary), Matthew Peters of the Vancouver office of McCarthy Tetrault, Robert Stephenson of the Toronto office of McCarthy Tetrault, and Charles Morgan of the Montreal office of McCarthy Tetrault.

³⁷ The analysis which follows relies primarily on a close analysis of the teleconference videotape.

³⁸ These questions had been specifically forwarded in advance to each of the partner facilitators at the six law firm sites, but had not been provided in advance to the business participants. Of course, the general nature of the anticipated topics had been discussed by the facilitators with the participants when making the invitations to participate.

³⁹ These preliminary results slides did not differ greatly from the final results presented here: only three slides were shown, one to accompany each discussion question — and they were not displayed for long. The intention was to provide some illustration of the kinds of categories that might be considered in order to create a basis for discussion, rather than to provide specific figures to the participants.

⁴⁰ The direction of the sweep was alternated with each question: east to west and vice versa. At each location, all business participants were given an opportunity to respond to each question. No one contributor dominated discussion in any location.

⁴¹ Specific examples of book value/market value ratios were given for Coke (94%), Proctor & Gamble (93%) and Microsoft (92%).

⁴² Another speaker later pointed out to the teleconference participants that Industry Canada had already appointed a commission which was then examining the treatment of intellectual property in bankruptcies and which was expected to report in the summer of 2002. In fact in March 2002 the “Final Report from the Joint Task Force on Business Insolvency Law Reform from the Insolvency Institute of Canada (IIC) and the Canadian Association of Insolvency & Restructuring Professionals (CAIRP)” was released and submitted to Industry Canada’s Corporate Law Policy

Directorate, online: <http://www.insolvency.ca/papers/2001Report.pdf>. For additional reports on this topic see *Report of the IPIC licensing committee, "Intellectual Property Licensing Issues in Bankruptcy or Insolvency"* (16 September 2003), online: Intellectual Property Institute of Canada

⁴³ This speaker also specifically suggested bringing crown liens into the proposed registration scheme — instead of allowing them to remain hidden, as at present. Moreover, the speaker suggested that the legislation should be revised to explicitly allow the courts of all fourteen Canadian jurisdictions (federal, provincial and territorial) to recognize the intellectual property orders of the others.

⁴⁴ Virtually all attendees were present throughout the agenda and thus, at the conclusion, provided feedback on the whole experience (see below).

⁴⁵ There was an additional paper presented by videotape about reform in Australia. There was one other paper prepared which was in the distributed materials but was not presented or discussed due to the author's illness.

⁴⁶ This was, indeed, the annual address for the Commonwealth Law Lecture Series which was held that year in Canada and which the Commonwealth Legal Education Association generously agreed to organize as part of the Conference. The paper was later included in the collected papers from the Conference which were published as Richard McLaren, "Secured Transactions and Intellectual Property in the Commonwealth and Beyond" in Knopf, *supra* note 4. This paper was among those to which reference was not made by the Commission in the 2004 *Leveraging Knowledge Assets Report*.

⁴⁷ There was no text, as such, published from these remarks. However, an unusual feature of the subsequent volume edited by Howard Knopf is that the Preface consists of both a comment by Nathalie Des Rosiers, then President of the Law Commission of Canada, and a comment by Marybeth Peters. In the latter comments, the Honorable Register of Copyright describes the essence of her remarks at the conference (Knopf, *supra* note 4 at ix-x).

⁴⁸ *Leveraging Knowledge Assets Report*, *supra* note 9 at 5.

⁴⁹ See *Ibid.* at n. 18 to section 1.4, referring to the prepared statement of Fritz Attaway, Senior Vice President for Congressional Affairs and General Counsel, Motion Picture Association of America, submitted as part of the U.S., Intellectual Property Security Registration: Hearings Before the House Subcommittee on Courts and Intellectual Property of the House Committee on the Judiciary, 106th Cong., 1st Sess. (24 June 1999) and to the paper by D.M.R. Townsend on conditions in the United Kingdom prepared for the Law Commission's 2001 Conference (See D.M.R. Townsend, "Using Intellectual Property as Security in the U.K.: Current Practice Difficulties and Issues" in Knopf, *supra* note 4 at 417). It also appears to be a curious omission that the Law Commission specifically invited three other internationally comparative papers as part of the first part of its investigations and yet the *Leveraging Knowledge Assets Report* makes no reference to any of them. See Alison Firth, "Comparative Experiences in Australia, U.S.A., U.K., and Europe — Framework, Practices and Trends in the EU" in Knopf, *supra* note 4 at 343; John V. Swinson, "Security Interests in Intellectual Property in Australia" in Knopf, *supra* note 4 at 377; and William Murphy & Thomas Ward, "Security Interests in Intellectual Property under U.S. Law: The Existing Dissonance and Proposed Solutions" in Knopf, *supra* note 4 at 455.

⁵⁰ *Leveraging Knowledge Assets Report*, *supra* note 9 at 84.

⁵¹ *Ibid.* at 85.

⁵² R.S.C. 1985, c.C-42, as amended.

⁵³ *Leveraging Knowledge Assets Report*, *supra* note 9 at 42–43, n. 16 to section 4.3.

⁵⁴ The footnote in question, Footnote 16 to section 4.3, goes on to muse "What if the assignee does not wish to register the copyright? ... In our view, this is not a significant practical problem in the case of transfers of title to the copyright, since cases in which ownership is transferred and yet the transferee continues to develop the work are relatively rare" (*Ibid.*). There is no empirical evidence provided to support this conclusion of rarity. But, in any event, the essence of the protection of copyright in Canada, as set out above, is that formal registration is not required in order to exercise rights under the Act, so, indeed, not registering a copyright interest is not a practical problem, since the Act confirms that rights can be fully exercised in the absence of registration.

⁵⁵ *Copyright Act*, *supra* note 54, s. 13(4).

⁵⁶ *Massie & Renwick Ltd. v Underwriters' Survey Bureau Ltd.*, [1940] S.C.R. 218 at 258, Duff, C.J.C..

⁵⁷ *Copyright Act*, *supra* note 54, ss. 54 ff.

⁵⁸ *Copyright Act*, *supra* note 54, ss. 2, 14.2, 28.1, 28.2.

⁵⁹ David Lametti, "The concept and Conceptions of Intellectual Property as the Object of Real Security in Quebec Civil Law" (Paper presented to the Conference on Leveraging Knowledge Assets: Security Interests in Intellectual Property, November 16-17, 2001) at 10, Tab 4.

⁶⁰ See *Leveraging Knowledge Assets Report*, *supra* note 9 at 94 (Recommendations 2–11). The three remaining recommendations speak to more general notions: Recommendation 1: Parliament should improve the legal framework governing federal intellectual property rights to reduce the legal uncertainty associated with taking such rights as collateral; Recommendation 12: Governments should encourage the development of expertise in the valuation of intellectual property rights and facilitate the developments of best practises in this domain; Recommendation 13: The Canadian Bar Association, the Intellectual Property Institute of Canada, law schools, business schools and law societies should support the development of educational materials and courses dealing with security interests in intellectual property and promote expertise in commercial and intellectual property law.

⁶¹ Indeed, the Commission itself failed to mention in its report the paper written by Anthony J. Duggan for the Commission's conference which explored several options and recommended support for the enactment of a federal Personal Property Security Act. See Anthony J. Duggan, "Patent Security Interests: Costs and Benefits of Alternative Registration Regimes" in Knopf, *supra* note 4 at 557. Nor is the paper by Roderick A Macdonald, "The Governance of Human Agency through Federal Security Interests" in Knopf, *supra* note 4 at 577, referred to anywhere in the Report.

⁶² Howard Knopf, "Security Interests in Intellectual Property: an International Comparative Approach" in Knopf, *supra* note 4, citing *The Economist* (11 September 1999).

⁶³ *Leveraging Knowledge Assets Report*, *supra* note 9 at 20, s. 2.2.1.

⁶⁴ In particular, further specific involvement of lending institutions was encouraged by conference attendees. Suggestions were also made by conference attendees about couching such future consultations in business language rather than legal terms.

⁶⁵ The Commission was also urged by the conference attendees to continue to solicit participation from academics in disciplines other than law. Further involvement of the business community in the process of law reform development as begun by the Law Commission in this pilot study may provide the impetus necessary to achieve that part of the final recommendation of the Law Commission urging "business schools ... [to] support the development of educational materials and courses ... and promote expertise in commercial and intellectual property law".